

What I claim is:

1. A method for sealing cylindrical capsules formed of a body and of a cap inserted axially inside one another, comprising the phases of:

- 5       - placing the capsules to be sealed on a first rigid support movable in steps provided with a first plurality of seats designed to each contain a respective capsule, the support being designed to feed the capsules to means designed to distribute a sealing solution along the rim of the cap of each capsule;
- 10       - transferring the capsules that have received the sealing solution, from said first rigid support to a second rigid support movable in steps provided with a second plurality of seats designed to contain a respective capsule, the number of seats of said second plurality being much larger than that of the seats of said first plurality, the second rigid support then in turn transferring the capsules to an unloading station after a time sufficient to consolidate sealing.

15       2. Method as claimed in claim 1, wherein the capsules, in the first movable support, are disposed according to a horizontal position and, in the second support, in a vertical position, means being provided to overturn the capsules during transfer from the first to the second movable support.

3. Method as claimed in claim 1 or 2, wherein the capsules in the second support are disposed with the cap facing downwards.

20       4. An apparatus for sealing cylindrical capsules formed of a body and of a cap inserted axially inside one another, comprising means to feed capsules positioned to be sealed, means to distribute a liquid sealing solution along the rim of the cap of each capsule and a computerized control unit designed to coordinate the movement of the members of the apparatus, further including:

- 25       - two rigid supports movable in steps, each provided with seats designed to contain the capsules to be sealed, the seats of the second support being in a much larger number than the seats of the first support;
- for each movable support, respective means for stepped feed;
- means to transfer the capsules from the first to the second rigid movable

support; and

- means to unload the sealed capsules from the second rigid movable support.

5        5. Apparatus as claimed in claim 4, wherein said rigid movable supports are circular platforms revolving intermittently around vertical axes, through apertures being produced in each platform, distributed regularly according to coaxial circumferences to form said seats for the capsules, each revolving platform being superimposed and moved close to a respective fixed table designed to prevent the capsules from being dropped from said apertures.

10       6. Apparatus as claimed in at least claim 5, wherein said apertures of the first platform are distributed in the same number according to two concentric circumferences spaced apart and said apertures of the second platform are distributed in the same number according to several concentric circumferences.

15       7. Apparatus as claimed in claim 4, wherein said means to distribute the sealing solution include, for each row of apertures of the first platform, a distributor disk partially immersed in a container containing the liquid sealing solution, said disk, through an aperture produced in the table underlying the first platform at the level of each circular row of apertures coming, with stepped rotation of the first platform, into contact successively with the capsules disposed inside the apertures of the first platform, raising them slightly.

20       8. Apparatus as claimed in claim 7, wherein said means to distribute the sealing solution include a pressure roller rotating together with the disk, in the same direction and at the same peripheral speed as the disk, the roller being carried by an oscillating element designed to place it on the capsule to be sealed on the opposite side of the respective distributor disk, to provide the capsules together with the disk with a rotating movement to allow the disk to uniformly transfer the liquid solution to the entire periphery of the rim of the cap of the capsule.

25       9. Apparatus as claimed in claim 8, wherein, for each capsule, said pressure roller has, projecting from the periphery, a pair of gaskets made of rubber

or another resilient material designed to come into contact with the capsule on opposed parts with respect to the rim of the cap of the capsule, said gaskets each being spaced from said rim so that they are not wet by the solution distributed thereon.

5           10. Apparatus as claimed in claim 4, wherein:

- said revolving platforms, with respective fixed tables, are partly superimposed horizontally and are moved vertically close one above the other;
- in the fixed table of the upper platform for each circumference of apertures, an aperture is provided designed to allow a capsule to drop from an aperture of  
10   the upper platform into an aperture of the lower platform;
- under the lower platform, horizontally at the level of apertures in the fixed table of the upper platform and in the fixed table of the lower platform, suction means are provided, designed to accelerate feed of the capsule from the upper platform to the lower platform; and
- 15   - translating means of the second platform are provided, designed to move it radially in steps with respect to the first platform, to position in succession apertures of the lower platform under apertures of the upper platform, to receive the capsules through gravity.

20           11. Apparatus as claimed in claim 4, for sealing capsules of elongated form, wherein the capsules are placed in the apertures of the first platform in a horizontal position, with the axis of the capsule disposed radially to the platform, and the capsules in the second platform are disposed in vertical position, means being provided to overturn the capsules during transfer from the first to the second platform.

25           12. Apparatus as claimed in claim 11, wherein said overturning means include, in the apertures of the surface underneath and adjacent to the first platform, a respective pair of projections to support the capsule to be transferred, said projections being disposed inside the aperture at the level of the opposed ends of the capsule, one of said projections of each pair, by means of an actuator, being

withdrawable from the aperture to allow the relative end of the capsule to drop overturning from a horizontal position to a vertical position.

13. Apparatus as claimed in claim 4, wherein the microprocessor control unit of the apparatus is designed to control in a synchronized way stepped rotation and relative translation of the platforms, the actuator to overturn the capsules, and  
5 general synchronized operation of the feeding and sealing means.